



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/815,970

04/02/2004

Robson L. Splane JR.

P08226US00/RFH

7740

881 7590 02/08/2007
STITES & HARBISON PLLC
1199 NORTH FAIRFAX STREET
SUITE 900
ALEXANDRIA, VA 22314

EXAMINER

MATTER, KRISTEN CLARETTE

ART UNIT

PAPER NUMBER

3771

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
--	-----------	---------------

3 MONTHS

02/08/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/815,970

Applicant(s)

SPLANE ET AL.

Examiner

Kristen C. Matter

Art Unit

3771

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 02 April 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-38 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 22-25 is/are allowed.
- 6) ☒ Claim(s) 1-14, 18, 19, 21, 26-29, 33-38 is/are rejected.
- 7) ☒ Claim(s) 15-17, 20 and 30-32 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 02 April 2004 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
- Paper No(s)/Mail Date 8/12/04.

- 4) ☐ Interview Summary (PTO-413)
- Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Drawings

Please see rejections to drawings on the attached Notice of Draftsperson's Patent Drawing Review.

Figures 1-24 should be designated by a legend such as --Prior Art-- because only that which is old is illustrated according to the Applicant's disclosure. See MPEP § 608.02(g).

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: 122 (paragraph 124).

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference character "122" has been used to designate both pivot axis and housing.

Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

The abstract of the disclosure is objected to because on line 5, "the first, backrest" should be replaced with --the first backrest--. Correction is required. See MPEP § 608.01(b).

Claim Rejections - 35 USC § 112

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

Claim 13 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claim 13 recites the limitation "said second elevated support member" in line 2.

There is insufficient antecedent basis for this limitation in the claim.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1, 5, and 13 are rejected under 35 U.S.C. 102(b) as being anticipated by Annas et al. (US 3,620,210).

Regarding claims 1 and 5, Annas et al. discloses a passive motion machine comprising a main support assembly (10) with a first support member (A), a second support member (B), providing a substantially horizontal common plane with the first support member, wherein said second support member is pivotable in said plane to provide passive bending motion to a part of the body and second support member having a central axis (x) to provide rotational movement of a part of the body supported by the second support member. Annas et al. further disclose a

Art Unit: 3771

control box (62) to operate motor (60) to move the device from one position to the other on a repeated basis (see column 3, lines 8-11).

Regarding claim 13, second support member is tiltable to a position forming a non-zero angle with respect to first support (see Figure 2).

Claim 37 is rejected under 35 U.S.C. 102(b) as being anticipated by Riddle et al. (US 5,320,640). Riddle et al. discloses a continuous passive motion device comprising a main assembly including a first, second, and third support members (210, 78, 64), where at least one support member (78) is pivotably mounted to provide passive movement of a part of the body by means of a motorized drive (16). At least one support member (78) is adapted to support the head of a user (see column 3, lines 28-30) and comprises motorized cervical rotation means for continuous passive motion therapy.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 3, 4, 10, 11, 14, 18, 19, 21, 26, 28, 29, and 34 are rejected under 35 U.S.C. 103(a) as being unpatentable over Annas et al. in view of Borders (US 6,446,287).

Regarding claim 2, Annas et al. does not disclose an articulated leg support. Borders discloses a surgical table apparatus with articulated leg supports (24, 56, 79) and a latch to allow

the leg supports to be removed from the seat frame section (see column 3, lines 40-45 and column 6, lines 25-65). Although Borders is silent as to continuous passive motion, the controller disclosed by Borders is fully capable of providing continuous passive motion and one skilled in the art would recognize the ability to combine components of the two motorized tables because both relate to patient support/therapeutic tables. It would therefore have been obvious to one of ordinary skill in the art at the time the invention was made to have provided Annas et al.'s table with a leg support assembly as taught by Borders for selectively adjusting support of the legs of the user for therapeutic purposes.

Regarding claim 3, the leg support assembly disclosed by Borders includes support platform (82) that can be moved to a plane elevated with respect to the plane of the first support member such that the lower portions of the legs of the user are elevated and the upper portions of the legs of the user are at substantially right angles with respect to the lower portions of the legs and the trunk of the body (see Figure 10).

Regarding claim 4, the leg support disclosed by Borders includes at least two pivotable links (88, 90) enabling movement of the leg supports with respect to the main support (see Figures 11 and 13).

Regarding claim 10, the support disclosed by Borders has a first part (84) and a second part (86) selectively pivotable about a horizontal axis with respect to the first part between an inclined position and an upright position (see Figure 8).

Regarding claim 11, the table disclosed by Annas et al. has a second support member (A) adapted to support the lumbar region of the body of a user and forms at least a portion (32) of said first part (see Figure 3).

Regarding claim 14, the leg support assembly disclosed by Borders would comprise a third elevated support member along with the first and second elevated support members (A, B) disclosed by Annas et al. in the modified table.

Regarding claim 18, the leg support assembly disclosed by Borders includes a support platform (86) and has means enabling angular (pivot links) and longitudinal (latch) movement of the platform with respect to the first support.

Regarding claim 19, the second support member disclosed by Annas et al. is selectively tiltable to a non-zero angle with respect to the first support (see Figure 2).

Regarding claim 21, the controller of Borders is capable of providing both pivotable and rotational movement simultaneously. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have programmed the controller of the modified device to simultaneously provide both rotational and pivotable movement for provided continuous passive motion therapy to a user.

Regarding claim 26, the modified device of Annas et al. and Borders has a body support unit comprising at least one support member for supporting the head of a user (B), a second support member moveable with respect to said at least one support member for supporting the lumbar region of a user (A), and a third support member (leg assembly) moveable to a different plane for engaging the legs of a user, motor means, a stationary base (10), and a means (controller) for selectively providing pivoting of said at least one support member relative to the stationary base between an upright position (although inclined) and a substantially horizontal position (see Figure 2 and column 2, lines 20-25 of Annas et al.). For complete upright sitting, Borders teaches pivotable support members can be rotated through a range of $\pm 90^\circ$.

Regarding claim 28, Annas et al.'s device has the second support member tiltable to a position forming a non-zero angle with respect to first support (see Figure 2).

Regarding claim 29, second support member (A) would act as a seat when support member (B) extends at a non-zero angle to the at least one support member.

Regarding claim 34, Borders discloses control means (controller) fully capable of providing continuous repeated rotational movement between the second and third support members.

Claims 6-8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Annas et al. in view of Cavanaugh et al. (US 5,926,002).

Regarding claim 6, Annas et al. does not disclose programmable means. Cavanaugh et al. discloses a patient handling apparatus with programmable means (422) for controlling at least one operating mechanism for individually controlling pivoting movement between separate support members. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided Annas et al.'s device with programmable means as taught by Cavanaugh et al. for selectively controlling the amount of movement between support members.

Regarding claim 7, Annas et al. disclose stop button adapted to be operated by a user (see column 3, lines 5-10).

Regarding claim 8, Annas et al. does not disclose one motor for providing pivoting movement and one motor for providing rotational movement. It would have been an obvious design choice to one of ordinary skill in the art at the time the invention was made to have

Art Unit: 3771

provided Annas et al. device with separate motors for pivoting and rotating the support members because the device would have performed equally well with two separate motors and Cavanaugh et al.'s device is capable of controlling multiple drive mechanisms. Furthermore, absent a critical teaching or showing of unexpected results in the specification, it appears that the modified device of Annas et al. and Cavanaugh et al. would have performed equally well with either one or two motors.

Claims 9 is rejected under 35 U.S.C. 103(a) as being unpatentable over Annas et al. in view of Ragon et al. (US 3,450,132). Annas et al. is silent as to laterally spaced arm rests. Ragon et al. disclose a motor driven exercise apparatus with laterally spaced arm rests (41, 42). It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided Annas et al.'s device with arm rests as taught by Ragon et al. for providing support for the user's arms.

Claim 12 is rejected under 35 U.S.C. 103(a) as being unpatentable over Annas et al. in view of Borders and further in view of Ragon et al. for the reasons indicated with respect to claim 9 above.

Claim 27 is rejected under 35 U.S.C. 103(a) as being unpatentable over Annas et al. in view of Borders as applied to claim 26 above and further in view of Riddle et al. The modified device of Annas et al. and Borders does not disclose the at least one support member comprising a first support member for supporting the head of a user and a further support member for

Art Unit: 3771

supporting the upper trunk of the user. Riddle et al. teaches a first support member (198) with a further support member (78) for supporting the trunk of a user. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided the modified device of Annas et al. and Borders with a first support as taught by Riddle et al. for providing a headrest for added comfort to a user laying on the table.

Claims 35 and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over Annas et al. in view of Borders as applied to claim 26 above and further in view of Cavanaugh et al. Annas et al. and Borders are silent as to a handheld computer for enabling control of speed, direction, amount, and time period of movement. Cavanaugh et al. discloses handheld controller (300) for controlling movement of the support segments. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have provided the modified table of Annas et al. and Borders with the handheld computer for the reasons listed in regard to claims 6-8 above. Furthermore, it would have been an obvious design choice to one of ordinary skill in the art at the time the invention was made to have programmed the controller to control time, in addition to speed, direction, and amount of both bending and rotational movements because Cavanaugh et al. discloses the controller controls two separate directions of movement (see Figure 2).

Claim 38 is rejected under 35 U.S.C. 103(a) as being unpatentable over Riddle et al. in view of Borders. Riddle et al. does not disclose that the leg assembly (210) is adjustable to an elevated plane with respect to the other support members. It would have been obvious to one of

Art Unit: 3771

ordinary skill in the art at the time the invention was made to have provided Riddle et al.'s device with the elevated articulated leg rest taught by Borders for manipulating the legs and spine of the patient undergoing passive motion therapy because it is well known in the field to adjust the position of the legs and spine depending on the condition of the patient and the desired therapy.

Allowable Subject Matter

Claims 15-17, 20, and 30-32 would be allowable if rewritten to overcome the rejection(s) set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claims 22-25 are allowed over the prior art of record. The following is a statement of reasons for the indication of allowable subject matter: The prior art of record does not teach a continuous passive motion machine comprising a main support including a first support member defining a first substantially horizontal plane, a second support member in said first plane, and a third support member in said first plane where said second and third support members are each pivotably mounted so as to be moveable in said first plane with respect to first support member and second and third support members each further pivotably mounted about a central axis so as to enable rotational movement about said central axis, continuous passive motion machine further comprising a leg support assembly being moveable to a second plane elevated with respect to first plane and a motorized drive means for providing movement of said second and third support means.

Art Unit: 3771


Conclusion

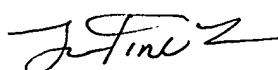
The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Duke (US 5,099,828), Primic (US 5,300,090), Parker, Jr. (US 4,953,541) are cited to show other continuous passive motion machines for the torso. Lossing (US 5,308,359) is cited to show other articulated leg supports.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Kristen C. Matter whose telephone number is (571) 272-5270. The examiner can normally be reached on Monday - Friday 9-4.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Justine Yu can be reached on (571) 272-4835. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Kristen C. Matter
Examiner
Art Unit 3771


JUSTINE R. YU
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700
2/2/07